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HOUSEKEEPERS' CHAT Tuesday, February 22, 1938

(FOR BROADCAST USE ONLY)

Subject: "QUESTIONS AND ANSWERS." Information from the Office of Experiment Stations, United States Department of Agriculture.

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Here's a day to answer some of the questions you've been asking about ovens in gas and electric ranges. (Right now seems to be the midst of the home baking season. And right now seems to be the time when listeners ask the most questions about ovens.) Some of the inquiries on hand today come from listeners thinking of buying a new kitchen stove. Others come from those who want advice on getting along better with the stove they have.

The insulation of the oven in gas or electric stoves is something listeners often ask about. Does good insulation pay? Does it save on fuel costs? What kind of insulation is best in an oven? These are some of the frequent questions.

Recent studies of electric ranges at the Maine Experiment Station and of gas ranges at the Nebraska Experiment Station both show that good insulation is more than "sales talk" by the man who is trying to sell you a stove. The facts about insulation are these. A well-insulated gas or electric oven takes more time (and fuel) to preheat than an oven with little insulation. But the well-insulated oven holds heat better, loses less into the room, so costs less for long-time baking. What's more, good insulation keeps the oven (and incidentally the cook) cooler.

Miss Monroe of Maine who made the study of electric ranges says that whether good insulation saves you money or not depends on what you use your oven for. She says if you do considerable baking -- that is, if you use the oven for an hour or more every time you heat it, the well-insulated oven is more economical. But if you heat the oven often for short-time processes -- if you use it just for heating bread or making toast, say, then an oven with only a fair amount of insulation will be cheaper to use than a well-insulated one because it heats faster.

Miss Monroe also says that in some electric ovens the temperature drops considerably when foods are put in. Ovens with little insulation cool more rapidly than heavily insulated ones when food is put in or when the oven door is opened. Also if the oven has several dishes of food baking at the same time, you may have to set the thermostat of your oven to a higher baking temperature -- even 50 degrees higher, because the bottom heating unit is of too low wattage to keep the desired temperature when considerable heat is needed.

So much for insulation in an electric oven. Now if you are considering buying a gas stove, here's a tip from Mr. Baragar of Nebraska. He says: "The insulation should be loosely packed but firm enough to hold its position in the walls of the oven. Glass wool or rock wool in blanket form makes a very effective insulation. To be really worth while the insulation should be at least an inch and a quarter thick." That's something to find out about before you buy. Ask your dealer to tell you exactly what kind of insulation the oven has and how it is put in. Mr. Baragar also says that insulating material in an oven should never be packed in solid blocks. That gives no spaces of still air which do the insulating.

Second question. Several listeners have asked about the size of an oven. If you are buying an electric stove you will find very little choice in oven size. Most electric ovens are 14 or 15 inches high and from 3 to 5 of those inches are filled with the heating units and the baffle. Ovens run from 17 to 19 inches deep and in widths of 14, 16, and 18 inches. So when you change from a coal or wood stove, say, to an electric range, you'll probably find that many of your oven dishes are too high to allow for baking on both racks at the same time. Wider shallower casseroles and baking dishes are the answer. The cost of heating also comes into this question of the size of an oven. A large oven costs more to preheat and to operate than a small one. But a large family needs an oven large enough to accommodate the pans most frequently used at one time. Otherwise baking in installments is necessary and that is expensive, time consuming and extra work for the cook.

Much the same is true of ovens in gas stoves. If you bake your own bread, you will be interested to know that for baking 6 one-pound loaves, you need an oven at least 16 inches wide, 14 inches high, and 19 inches deep. Persons who have 18-inch width in ovens prefer them to the usual 16-inch ovens, especially if they bake in large quantities. As for that 19 inches specified for the depth of the oven, that is necessary to accommodate a roaster -- large enough to cook a medium-sized turkey.

The oven door brings up another question. A listener asks whether a tight-fitting door is necessary in a gas oven. She says she has been told that you need a crack in the door to provide circulation of air in the oven.

Answer. By all means be sure your oven door is tight. Miss Monroe says that a door which does not close tightly on an electric oven allows expensive heat to escape not only during the preheating but all during baking. And that's not all. A crack in the door may give uneven baking because the front of the oven will be cooler than the back.

In a gas stove, too, a door that does not shut tight increases the operating cost. Mr. Baragar says that the idea about a crack in the door allowing for necessary circulation is false but sometimes used as an excuse by salesmen who are handling stoves with poorly fitted doors.

That's only a start on the stove questions. We'll continue them on another questions and answer day.

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